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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/021,509 | 12/07/2001 | Marie-Claude Gingras | HO P02046US1 | 8559 |

26271 7590 08/24/2006

FULBRIGHT & JAWORSKI, LLP
1301 MCKINNEY
SUITE 5100
HOUSTON, TX 77010-3095

| EXAMINER | |
|---|---|
| BELYAVSKYI, MICHAIL A | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 1644 | |

DATE MAILED: 08/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| **Advisory Action Before the Filing of an Appeal Brief** | **Application No.** 10/021,509 | **Applicant(s)** GINGRAS ET AL. | |
|---|---|---|---|
| | **Examiner** Michail A. Belyavskyi | **Art Unit** 1644 | |

***--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --***

THE REPLY FILED 21 June 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☐ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:
   a) ☐ The period for reply expires _____months from the mailing date of the final rejection.
   b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

   Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☒ The Notice of Appeal was filed on *21 April 2006*. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
   (b) ☐ They raise the issue of new matter (see NOTE below);
   (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).
4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
   The status of the claim(s) is (or will be) as follows:
   Claim(s) allowed: ___.
   Claim(s) objected to: ___.
   Claim(s) rejected: 1,3,5,11,15,16,40-42
   Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). _____
13. ☐ Other: _____.

Continuation of 11. does NOT place the application in condition for allowance because:
It is noted that claim 42 was inadvertently omitted from the rejections under 35 U.S.C. 112, first paragraph and under 35 U.S.C. 102(e) in the Office Action, mailed on 10/21/05.

1. Claims 1, 3, 5, 11, 15, 16, 40-42 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention for the same reasons set forth in the previous Office Action, mailed 10/21/05

Applicant's arguments, filed 06/21/06 have been fully considered, but have not been found convincing.

Applicant asserts that : (i) while there is no working examples in the specification, there is sufficient guidance in the specification that provide the necessary knowledge for using the claimed method ; (ii) the Examiner is given improper weight to Kelker et al because it is irrelevant to the whole demonstration of the articles showing a close structural relationship between the Ig-V fold and the TREM-1 structure (iii) One can practice the claimed invention because one can predict the therapeutical efficacy of the composition with TREM-1 ligand activity; (iv) Bouchon et al ( Nature ,2001, 410 1103-1107) reference utilized the teaching of the present invention, thus showing the enablement of the present invention.

Contrary to Applicant's assertion, it is the examiner position that thre is unsufficient guidance in the specification for using the claimed method. As was stated in the previous Office Action, the specification only discloses: (i) the levels of TREM-1 expression in various tissues and cell types ( see Examples 4 and 5 in particular); (ii) the levels of TREM-1 splice variant, in samples collected from normal individuals and individual suffering from an autoimmune disease ( see example 10 in particular); (iii) in vitro data indicating that TREM-1 splice variant, a polypeptide comprising SEQ ID NO:2 can down regulate LPS-induced cytokine production ( see example 11 in particular); (iv) a competitive inhibitor for the ligand of TREM-1, wherein said competitive inhibitor is a polypeptide comprising SEQ ID NO:2 ( see page 14 in particular). The specification does not adequately teach how : (i) effectively modulate any immune response by administering an effective amount of composition comprising any soluble polypeptide comprising at least a portion of amino acid 1 to 136 of SEQ ID NO:2 or any polypeptide mimetic thereof in the amount effective to modulate the levels of TREM-1 and or TREM-1SV ligand binding activity, claimed in claim 1 or (ii) effectively modulate any immune response by administering an effective amount of composition comprising any soluble polypeptide comprising at least a portion of amino acid 36 to 114 of SEQ ID NO:2 the whole portion of amino acid 36-114 of SEQ ID NO:2 or more than the whole portion of amino acids 36-114 of SEQ ID NO:2, claimed in claim 2.

Moreover, no animals models were used to study the effectively to (i) effectively modulate any immune response by administering an effective amount of composition comprising any soluble polypeptide comprising at least a portion of amino acid 1 to 136 of SEQ ID NO:2 or any polypeptide mimetic thereof in the amount effective to modulate the levels of TREM-1 and or TREM-1SV ligan binding activity, claimed in claim 1 or (ii) effectively modulate any immune response by administering an effective amount of composition comprising any soluble polypeptide comprising at least a portion of amino acid 36 to 114 of SEQ ID NO:2 the whole portion of amino acid 36-114 of SEQ ID NO:2 or more than the whole portion of amino acids 36-114 of SEQ ID NO:2, claimed in claim 2. The specification only states that it is envisioned that administering of TREM-1 splice variant may resulting down regulation of the inflammatory response ( see page 45 in particular). It is also noted that Specification define "modulating an immune response' as capacity of either increase or decrease immune response (see page 10 of the Specification in particular). As acknowledge by Applicant the specification provide no working examples of the claimed method ( see page 4 of the Applicant's argument filed on 06/21/06). How can the same treatment simultaneously results in either increasing or decreasing the immune response?

Similarly, the Declaration under 37 CFR 1.132 by Dr. Gingras only stated that the inventors envisioned modulating inflammation in septic shock by administering a competitive inhibitor of the ligand for TREM-1 ( see page 1 in particular). Moreover, the Examiner does not find a support in said declaration for the asserted statement that "Declaration under 37 CFR 1.132 by Dr. Gingras disclosed that the teaching of the present invention show that a soluble TREM-1 inhibits cell function in a mouse model". Dr. Gingras only stated that should the prophetic examples disclosed in the instant application be performed, the obtained results might be similar to those of Bouchon et al. However, it is noted that said the prophetic experiments have not actually been performed. In addition, Bouchon et al., ( Nature ,2001, 410 1103-1107) reference only teaches a very specific mTREM-1/IgG1 fusion protein, not any compound that was used in experimental endotoxic shock on murine models. However, Bouchon et al., explicitly stressed that experimental endotoxic shock reproduced human sepsis only in part as it does not involve the replication and dissemination of bacteria ( see page 1105 in particular). The is no teaching or suggestion in Bouchon et al. to: (i) effectively modulate any immune response by administering an effective amount of composition comprising any soluble polypeptide comprising at least a portion of amino acid 1 to 136 of SEQ ID NO:2 or any polypeptide mimetic thereof in the amount effective to modulate the levels of TREM-1 and or TREM-1SV ligan binding activity, claimed in claim 1 or (ii) effectively modulate any immune response by administering an effective amount of composition comprising any soluble polypeptide comprising at least a portion of amino acid 36 to 114 of SEQ ID NO:2 the whole portion of amino acid 36-114 of SEQ ID NO:2 or more than the whole portion of amino acids 36-114 of SEQ ID NO:2, claimed in claim 2.

With regasrds to Applicant's comments that the structure of different TREM-1 molecules across species have been studied and their ligand binding site is a common conservative region, as supported by Kelker et al. It is noted that Kelker et al., explicitly stated that " the structural data presented here do not unfortunately allow for very informed speculation on precise ligand binding sites or on potential ligand ( see page 1180 in particular).

Since there is no animal model studies and data in the specification to show the effectively of effectively modulate any immune

response by administering an effective amount of composition comprising any soluble polypeptide comprising at least a portion of amino acid 1 to 136 of SEQ ID NO:2 or any polypeptide mimetic thereof in the amount effective to modulate the levels of TREM-1 and or TREM-1SV ligand binding activity, claimed in claim 1 or (ii) effectively modulate any immune response by administering an effective amount of composition comprising any soluble polypeptide comprising at least a portion of amino acid 36 to 114 of SEQ ID NO:2 the whole portion of amino acid 36-114 of SEQ ID NO:2 or more than the whole portion of amino acids 36-114 of SEQ ID NO:2, claimed in claim 2 it is unpredictable how to correlate in vitro results with in vivo use. Therefore, it is the Examiner position that it is not clear that the skilled artisan could predict the efficacy of a method of effectively modulate any immune response by administering an effective amount of composition comprising any soluble polypeptide comprising at least a portion of amino acid 1 to 136 of SEQ ID NO:2 or any polypeptide mimetic thereof in the amount effective to modulate the levels of TREM-1 and or TREM-1SV ligan binding activity, claimed in claim 1 or (ii) effectively modulate any immune response by administering an effective amount of composition comprising any soluble polypeptide comprising at least a portion of amino acid 36 to 114 of SEQ ID NO:2 the whole portion of amino acid 36-114 of SEQ ID NO:2 or more than the whole portion of amino acids 36-114 of SEQ ID NO:2, claimed in claim 2. Thus in the absence of working examples or detailed guidance in the specification, the intended in vivo uses of composition comprising any soluble polypeptide comprising at least a portion of amino acid 1 to 136 of SEQ ID NO:2 or any polypeptide mimetic thereof or composition comprising any soluble polypeptide comprising at least a portion of amino acid 36 to 114 of SEQ ID NO:2 the whole portion of amino acid 36-114 of SEQ ID NO:2 or more than the whole portion of amino acids 36-114 of SEQ ID NO:2 to modulate any immune response are fraught with uncertainties.

Also an issue that applicant has not taught how to make and/or use any soluble polypeptide comprising at least a portion of amino acid 1 to 136 of SEQ ID NO:2 or any polypeptide mimetic thereof or composition comprising any soluble polypeptide comprising at least a portion of amino acid 36 to 114 of SEQ ID NO:2, the whole portion of amino acid 36-114 of SEQ ID NO:2 or more than the whole portion of amino acids 36-114 of SEQ ID NO:2 to effectively modulate an immune.

"Comprising" is considered open-ended claim language and includes amino acid residues outside of the specified peptide. Therefore, a peptide comprising at least a portion of amino acid 1 to 136 of SEQ ID NO:2 or any polypeptide mimetic thereof or composition comprising any soluble polypeptide comprising at least a portion of amino acid 36 to 114 of SEQ ID NO:2 the whole portion of amino acid 36-114 of SEQ ID NO:2 or more than the whole portion of amino acids 36-114 of SEQ ID NO:2 includes an unlimited number of amino acid sequences "comprising" an unlimited number of polypeptides. The disclosure of SEQ ID NOs: 2 and 28 cannot support the entire genus of peptides comprising at least a portion of amino acid 1 to 136 of SEQ ID NO:2 or any polypeptide mimetic thereof or composition comprising any soluble polypeptide comprising at least a portion of amino acid 36 to 114 of SEQ ID NO:2 the whole portion of amino acid 36-114 of SEQ ID NO:2 or more than the whole portion of amino acids 36-114 of SEQ ID NO:2 as part of their sequence that can be used to modulate an immune response.

Applicant is relying upon certain biological activities and the disclosure of a single species to support an entire genus. It is well known that minor structural differences among even structurally related compounds or compositions can result in substantially different biology, expression, and pharmacology of proteins. Therefore, structurally unrelated polypeptide "comprising at least a portion of amino acid 1 to 136 of SEQ ID NO:2 or any polypeptide mimetic thereof or composition comprising any soluble polypeptide comprising at least a portion of amino acid 36 to 114 of SEQ ID NO:2, the whole portion of amino acid 36-114 of SEQ ID NO:2 or more than the whole portion of amino acids 36-114 of SEQ ID NO:2" would be expected to have greater differences in their activities.

Thus, Applicant has not provided sufficient guidance to enable one skill in the art to use claimed (i) effectively modulate any immune response by administering an effective amount of composition comprising any soluble polypeptide comprising at least a portion of amino acid 1 to 136 of SEQ ID NO:2 or any polypeptide mimetic thereof in the amount effective to modulate the levels of TREM-1 and or TREM-1SV ligan binding activity, claimed in claim 1 or (ii) effectively modulate any immune response by administering an effective amount of composition comprising any soluble polypeptide comprising at least a portion of amino acid 36 to 114 of SEQ ID NO:2 the whole portion of amino acid 36-114 of SEQ ID NO:2 or more than the whole portion of amino acids 36-114 of SEQ ID NO:2, claimed in claim 2. in a manner reasonably correlated with the scope of the claims. The scope of the claims must bear a reasonable correlation with the scope of enablement. In re Fisher, 166 USPQ 18(CCPA 1970) indicates that the more unpredictable an area is, the more specific enablement is necessary in order to satisfy the statute.

In view of the quantity of experimentation necessary, the unpredictability of the art, the lack of sufficient guidance in the specification, the limited working examples, and the limited amount of direction provided given the breadth of the claims, it would take undue trials and errors to practice the claimed invention.

2. Claims 1, 3, 5, 11, 15, 16, 40 and 41 stand rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a New Matter rejection.

" composition comprising at least a portion of amino acid 1 to 136 of SEQ ID NO:2 or any polypeptide mimetic thereof in the amount effective to modulate the levels of TREM-1 and or TREM-1SV ligand binding activity", claimed in claim 1 or (ii) " composition comprising any soluble polypeptide comprising at least a portion of amino acid 36 to 114 of SEQ ID NO:2 the whole portion of amino acid 36-114 of SEQ ID NO:2 or more than the whole portion of amino acids 36-114 of SEQ ID NO:2", claimed in claim 2, " wherein composition comprising at least a portion of amino acid 1 to 136 of SEQ ID NO:2 or any polypeptide mimetic thereof modulates LPS-induced cytokine production", claimed in claim 41 represent a departure from the specification and the claims as originally filed. The passages pointed by the applicant do not provide a clear support for " composition comprising at least a portion of amino acid 1 to 136 of SEQ ID NO:2 or any polypeptide mimetic thereof in the amount effective to modulate the levels of TREM-1 and or TREM-1SV ligand binding activity", claimed in claim 1 or (ii) " composition comprising any soluble polypeptide comprising at least a portion of amino acid 36 to 114 of SEQ ID NO:2

the whole portion of amino acid 36-114 of SEQ ID NO:2 or more than the whole portion of amino acids 36-114 of SEQ ID NO:2", claimed in claim 2, " wherein composition comprising at least a portion of amino acid 1 to 136 of SEQ ID NO:2 or any polypeptide mimetic thereof modulates LPS-induced cytokine production", claimed in claim 41

The specification and the claims as originally field only support " variant of TREM-1" or splice variant as set forth in SEQ ID NO:2.

Applicant asserts that that the Specification on paragraph 55,59,60, 72,73,75,76,78 and 80 provided a support for the claimed " composition comprising at least a portion of amino acid 1 to 136 of SEQ ID NO:2 or any polypeptide mimetic thereof in the amount effective to modulate the levels of TREM-1 and or TREM-1SV ligand binding activity", claimed in claim 1 or (ii) " composition comprising any soluble polypeptide comprising at least a portion of amino acid 36 to 114 of SEQ ID NO:2 the whole portion of amino acid 36-114 of SEQ ID NO:2 or more than the whole portion of amino acids 36-114 of SEQ ID NO:2", claimed in claim 2, " wherein composition comprising at least a portion of amino acid 1 to 136 of SEQ ID NO:2 or any polypeptide mimetic thereof modulates LPS-induced cytokine production", claimed in claim 41.

Contrary to Applicant's assertion, it is the Examiner position that the passages pointed by Applicant do not provide a clear support for said limitations.

3. Claims 1, 3, 5, 11, 15, 16, 40 –42 stand rejected under 35 U.S.C. 102(e) as being anticipated by US Patent 6,420,526 or US Patent 6,504,010 forth in the previous Office Action, mailed 10/21/05.

Applicant's arguments, filed 06/21/06 have been fully considered, but have not been found convincing.

Applicant asserts that : (i) US Patent '010 describes activation of the immune system not a reduction of activation such as in the present application; (ii) US Patent'526 lacks any real disclosure which of the sequence of SEQ ID NO:478 must be used to produce a polypeptide usable as a protein therapeutic.

Contrary to Applicant's assertion, it is noted that as amended the instant claims recite a method of modulating an immune response. As define in the specification on page 10 "modulating an immune response' is a capacity of either increase or decrease immune response. Applicant statement that "US Patent '010 describes activation of the immune system" corroborate the examiner position that US Patent'010 is a prior art reference.

As has been stated previously, applicant relies upon an asserted and claimed mechanism of action but does not provide objective evidence that the prior art teaching of administering of polypeptide that is identical to the claimed polypeptide comprising SEQ ID NO:2 to achieve the same therapeutic effect differs from the claimed methods.

The sequence alignment, shown that polypeptide comprising SEQ ID NO:2 of the instant application is 100 % identical to SEQ ID NO: 478 of US Patent '526 or 100 % identical to SEQ ID NO: 1825 of US Patent '010. It is noted that the term "comprises" is open-ended term. It means that a peptide may include additional unrecited amino acids on either or both of the N- or C- termini of given sequence and thus can read on the recited polypeptide. Moreover, US Patent'526 teaches that polypeptides of the invention comprises the extracellular domain alone or fused to the intracellular domain i.e. lacking the transmembrane domain, i.e soluble polypeptide ( see column 145, lines 1-10 in particular). Similarly, US Patent ' 010 teaches that in certain embodiments the peptides of the invention may include peptides in which an N-terminal leader sequense and/or transmembrane domain have been deleted ( see column 45, lines 55-65 in particular).

As was stated in the previous Office Action, it is the Examiner position that US Patent '526 teaches a method of modulating an immune responses, i.e. decreasing an inflammatory response in a subject suffering from disease comprising administering a polypeptide of SEQ ID NO: 478 in a pharmaceutical carrier ( see entire document , abstract, columns 4, 8 ,77 in particular). US Patent '526 teaches that disease are infectious disease, GVHD and septic shock ( see column 77 and 132 in particular). Although the reference is silent about decreasing the activity of DAP12/TREM1 complex after administering of SEQ ID NO: 478, or that SEQ ID NO: 478 is a competitive inhibitor of the ligand to TREM-1 these functional limitations would be inherent properties of said polypeptide because it is 100 % identical with the claimed polypeptide comprising SEQ ID NO:2. Since the office does not have a laboratory to test the reference polypeptide, it is applicant's burden to show that the reference polypeptide does not decrease the activity of DAP12/TREM1 complex or not a competitive inhibitor of the ligand to TREM-1 as recited in the claims. See In re Best, 195 USPQ 430, 433 (CCPA 1977); In re Marosi, 218 USPQ 289, 292-293 (Fed. Cir. 1983); In re Fitzgerald et al., 205 USPQ 594 (CCPA 1980).

Claims 11, 15, 16 and 40-42 are included because the claimed functional limitation would be inherent properties of the a method of modulation an immune response and a method of modulation an inflammatory response in a subject suffering from disease comprising administering a polypeptide of SEQ ID NO: 478 taught by US Patent '526 because the referenced polypeptide of SEQ ID : 478 used in the referenced methods is 100 % identical with the claimed polypeptide comprising SEQ ID NO:2 used in the claimed methods. It is clear that US Patent '526 and the current application administered the same compound to achieved the same results in the same patients thus the reference polypeptide would inherently performed the intended use. If the prior art structure is capable of performing the intended use, then it meets the claim. When a claim recites using an old composition or structure (e.g. polypeptide of SEQ ID NO: 478) and the use is directed to a result or property of that composition or structure then the claim is anticipated. In addition, under the principles of inherency, if a prior art method, in its normal and usual operation, would necessarily perform the method claimed, then the method claimed will be considered to be anticipated by the prior art. When the prior art method is the same as a method described in the specification, it can be assumed the method will inherently perform the claimed process. See MPEP 2112.02 . Also, see Bristol-Myers

Squibb Co. v. Ben Venue Laboratories, Inc. 58 USPQ2d 1508 (CA FC 2001); Ex parte Novitski 26 USPQ 1389 (BPAI 1993); Mehl/Biophile International Corp. V. Milgraum, 52 USPQ2d 1303 (Fed. Cir. 1999); Atlas Powder Co. V. IRECO, 51 USPQ2d 1943 (Fed. Cir. 1999).

Similarly, US Patent '010 teaches a method of therapy of an immune response in a subject suffering from disease comprising administering a polypeptide of SEQ ID NO: 1825 in a pharmaceutical carrier ( see entire document , abstract, column 3, 45, 46, 78 and 79 in particular). It is noted that polypeptide compising SEQ ID :2 an of the instant application is 100 % identical to SEQ ID NO: 1825 of US Patent '010 ( see attached sequence alignment). Although the reference is silent about decreasing the activity of DAP12/TREM1 complex after administering of SEQ ID NO: 1825, or that SEQ ID NO: 1825 is a competitive inhibitor of the ligand to TREM-1 these functional limitations would be inherent properties of said polypeptide because it is 100 % identical with the claimed SEQ ID NO:2. Since the office does not have a laboratory to test the reference polypeptide, it is applicant's burden to show that the reference polypeptide does not decrease the activity of DAP12/TREM1 complex or not a competitive inhibitor of the ligand to TREM-1 as recited in the claims. See In re Best, 195 USPQ 430, 433 (CCPA 1977); In re Marosi, 218 USPQ 289, 292-293 (Fed. Cir. 1983); In re Fitzgerald et al., 205 USPQ 594 (CCPA 1980).

Claims 11, 15, 16 and 40-41 are included because the claimed functional limitation would be inherent properties of the a method of modulation an immune response and a method of modulation an inflammatory response in a subject suffering from disease comprising administering a polypeptide of SEQ ID NO: 1825 taught by US Patent '010 because the referenced polypeptide of SEQ ID : 010 used in the referenced methods is 100 % identical with the claimed SEQ ID NO:2 used in the claimed methods. It is clear that US Patent '010 and the current application administered the same compound to achieved the same results in the same patients thus the reference polypeptide would inherently performed the intended use. If the prior art structure is capable of performing the intended use, then it meets the claim. When a claim recites using an old composition or structure (e.g. polypeptide of SEQ ID NO: 1825) and the use is directed to a result or property of that composition or structure then the claim is anticipated. In addition, under the principles of inherency, if a prior art method, in its normal and usual operation, would necessarily perform the method claimed, then the method claimed will be considered to be anticipated by the prior art. When the prior art method is the same as a method described in the specification, it can be assumed the method will inherently perform the claimed process. See MPEP 2112.02 . Also, see Bristol-Myers Squibb Co. v. Ben Venue Laboratories, Inc. 58 USPQ2d 1508 (CA FC 2001); Ex parte Novitski 26 USPQ 1389 (BPAI 1993); Mehl/Biophile International Corp. V. Milgraum, 52 USPQ2d 1303 (Fed. Cir. 1999); Atlas Powder Co. V. IRECO, 51 USPQ2d 1943 (Fed. Cir. 1999).

As pointed out previously, the mechanism of action does not have a bearing on the patentability of the invention if the invention was already known or obvious. Even though applicant has proposed or claimed the mechanism by which a particular compound decrease myeloid cell activation it does not appear to distinguish the prior art teaching the same or nearly the same methods to achieve the same endresult. Mere recognition of latent properties in the prior art does not render nonobvious an otherwise known invention. In re Wiseman, 201 USPQ 658 (CCPA 1979). Granting a patent on the discovery of an unknown but inherent function would remove from the public that which is in the public domain by virtue of its inclusion in, or obviousness from, the prior art. In re Baxter Travenol Labs, 21 USPQ2d 1281 (Fed. Cir. 1991). See M.P.E.P. 2145.

The reference teaching anticipates the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michail Belyavskyi whose telephone number is 571/ 272-0840 The examiner can normally be reached Monday through Friday from 9:00 AM to 5:30 PM. A message may be left on the examiner's voice mail service. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Chan can be reached on 571/ 272-0841 .

The fax number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michail Belyavskyi, Ph.D.
Patent Examiner
Technology Center 1600
August 18, 2006,

Christina Chan

CHRISTINA CHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600